

8 October 1965

MEMORANDUM FOR THE RECORD

25X1 SUBJECT: [] Mark II and Mark II R5 Contact Printers

25X1 1. Visited [] facility on 30 September 1965 for demon-
25X1 stration of printers. Contact - []

2. The Mark II is strictly a contact printer, and the Mark II R5 is a contact/fixed ratio enlarging printer. Both printers use the same circuitry - all solid state plug in components with trouble indicator lights in each of the seven plug-in components allowing for simple maintenance.

3. Contact printing, Mark II and Mark II R5 - Resolution - 220L/MM on 8430 duplicating film. Enlarging mode, (model Mark II R5 only) - 2X enlargement - Resolution - 40 lines/mm (projection plane).

4. Both the Mark II and Mark II R5 printers show numerous improvements over the previous model CP 18 printer including:

A. Improved scanning technique and improved phosphor surface of Cathode Ray Tube provide faster and more accurate exposure control.

B. Improved platten - Provides better contact and hence better resolution.

5. The enclosed literature should be filed in the active company file and be retained for future reference. Copies of the literature were given to the Photo Lab Branch of PSD. Both printers are "Shelf Items."

[]
P&DS/DB

clc

NGA Review

SEP 14 5 55 AM '65

P&DS

SEP 13 2 47 PM '65

CONFIDENTIAL
CLASSIFICATION99727-6
NPIC PROJECT NO.
P&DS
RESPONSIBLE COMPONENT

RECEIPT RB/OS

SUPPORT/SERVICE REQUIREMENT

DISSEMINATED RB/OS

(The following info is required when rqmts are levied by external organizations)

OFFICE _____ DATE OF RQMT _____ CONTROL NO. _____
NPIC DIV/DETACH PROCESSING RQMT _____ PROJ OFF _____ PHONE _____
SUPPORT REQUESTED OF _____ PRIORITY _____ DATE REQUIRED _____

(The following info is required when rqmts are levied for internal support)

DIV/STAFF P&DS _____ DATE OF RQMT 10 September 1965 CONTROL NO. 25X1
SUPPORT REQUESTED OF P&DS _____ PROJ OFF _____ PHONE _____ 25X1
PRIORITY _____ DATE REQUIRED 30 September 1965

1. BACKGROUND INFORMATION:

The work requested is in support of a NPIC : Photo interpretation proj.;
☒ Non-photo interpretation project. It will result in: Hard copy report;
Informal report (memo); ☒ Basic service only.25X1 Project Description: Evaluation of Printer Mark II & II R 52. SPECIFIC SUPPORT/SERVICE REQUESTED: Support from NPIC will probably consist of:
Photographic; Reproduction; Mensuration; Graphics; ADP; Editing;
Other (explain below) -- (Include statement as to estimated amount of work required of support component(s); i.e., number of contact prints, enlargements, boards, etc.)

3. URGENCY JUSTIFICATION: (If immediate support is required a statement of justification must be made on this form.)

DATE OF COMPLETION

CONFIDENTIAL
CLASSIFICATION

25X1 FM 218 (Revised 5-65)

25X1

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SPECIFICATIONS

Mark IIR5

Printer/Enlarger

contact or 2X

25X

25X

The Mark IIR5 Printer is a floor model printer designed for contact printing onto 10" x 10" cut sheet or 9½" roll materials and for enlarging from 5" format to 9½" materials at a nominal 2X enlargement. This printer in the contact mode is similar to our Mark II Printer. The unit consists of the following elements:

1. General.

Printing Light:

9" diameter, electrostatic focus, magnetic deflection cathode-ray tube with a P11 phosphor.

Electronic Components:

Solid state components and printed circuitry.

Exposure Control:

Control signal from photomultiplier tube varies velocity of exposing spot of light to slow in dense areas of the negative and rapid in thin areas, providing accurate incremental exposure control for each small portion of the picture with only one complete scan of the total area.

Control Panel:

Four raster edge controls: each raster edge may be adjusted independently of the remaining three.

Exposure Mode Switch: AUTO, MANUAL, and TEST positions.

Exposure Index Switch: allows selection of exposure indices for varying emulsions over 100-to-1 range.

Platen: Transparent pressure platen with removable air bag.

Roll Negative Spool Holders:

Removable negative spool holders are continuously adjustable up to 9½" width without adapters. Holds rolls of film up to 500 ft. long. Negative is manually advanced. (Safelight panel within printer allows viewing negative to center in the printing area before printing.)

Automatic Roll Paper Transport Model RP-2:

Used in both contact and enlarging modes. Removable motor-driven transport for 9½" roll film or paper up to 500 ft. long. Paper/film is advanced automatically when the printer platen is raised. The distance advanced for each print may be varied from 8" to 20" and is accurate to ±1/8" in repeatability. Time required to advance 10 inches is 2 seconds. Transport is hinged and may be raised up from printing stage to inspect the negative or clean the glass. Designed for darkroom operation while loaded with paper or film. Includes print counter. Power required is 3½ amps. 117 VAC.

Dimensions:

External (including roll paper transport): 64" high, 57" wide, 29" deep
Internal: Printing stage, 16" x 20", 40" above floor; 26" from CRT face to printing stage.

Weight: 245 lbs. net; 275 lbs. crated (including roll paper transport).

Electrical Requirements:

117 VAC, 50-60 cps; printer is internally regulated against line voltage changes 105-130V. Total power required with roll paper transport, 5 amp 117 VAC.

2. Contact Mode.

Emulsion to emulsion or through the negative film base.

Input Materials:

Positive or negative cut film up to 16" x 20", or rolls 9½" wide x 500 ft. maximum.

Reproduction Materials:

Single- or double-weight paper or film in cut sheets or roll form; or glass plates.

Optics: 112mm f/2.8 LogEtar lens to focus CRT exposing beam when contact printing.

3. Enlarging Mode.

This mode of the printer allows the user to re-route a 5" negative from its normal contact printing position to pass down the left side of the printer and into the glassless negative carrier located over the face of the cathode-ray tube. Provision is made for positioning the negative without exposing the roll material. A solenoid-actuated shutter covers the lens. The negative is positioned by aligning one corner through a safe-lighted window with cross-hairs. The operator views the same through the glass printing platen from a normal standing position. The film then passes through the right-hand panel of the printer cabinet, under a polished chrome roller and up to the negative take-up spoolwinder.

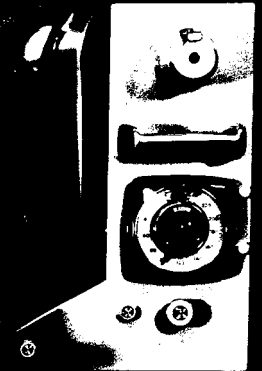
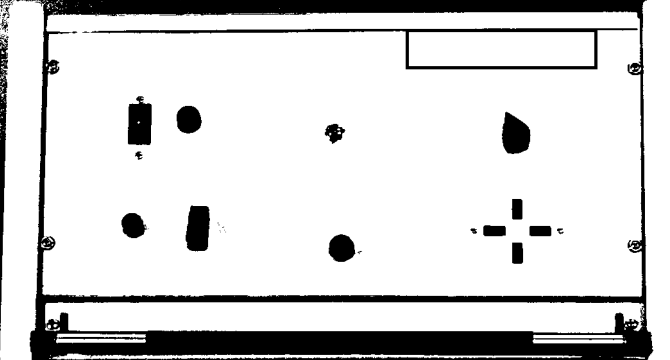
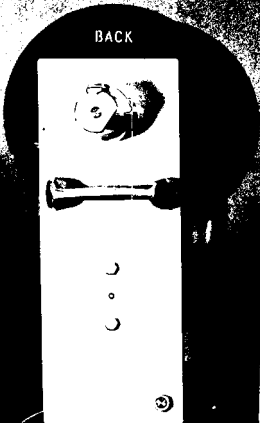
A high-quality f/3.5 140mm enlarging lens with pre-focused lens mounting assembly is supplied to be used in place of the lens mount used in the contact printing mode. The 140mm lens will cover the diagonal of a 5" x 5" format and permits approximately 2 diameters enlargement. To change from the contact printing mode requires only 2 minutes - to change optics and re-route the negative.

4. Spare Set of Electronic Modules.

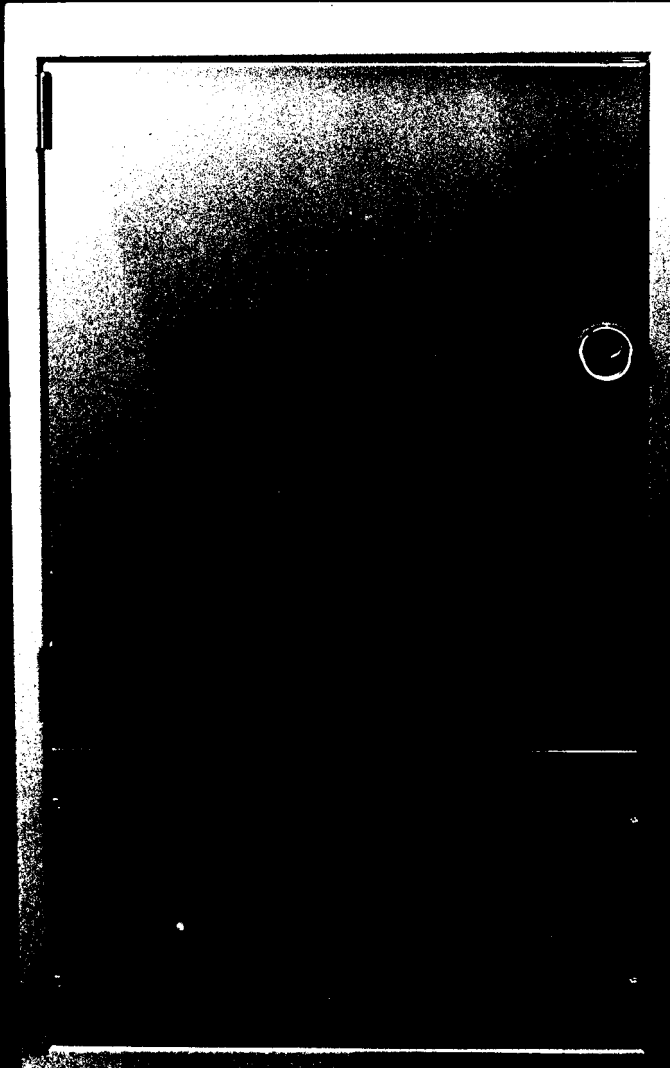
This set consists of 5 interchangeable printed circuit cards, one for each card in the printer. It is not a complete spare parts kit.

5. 70mm Capability.

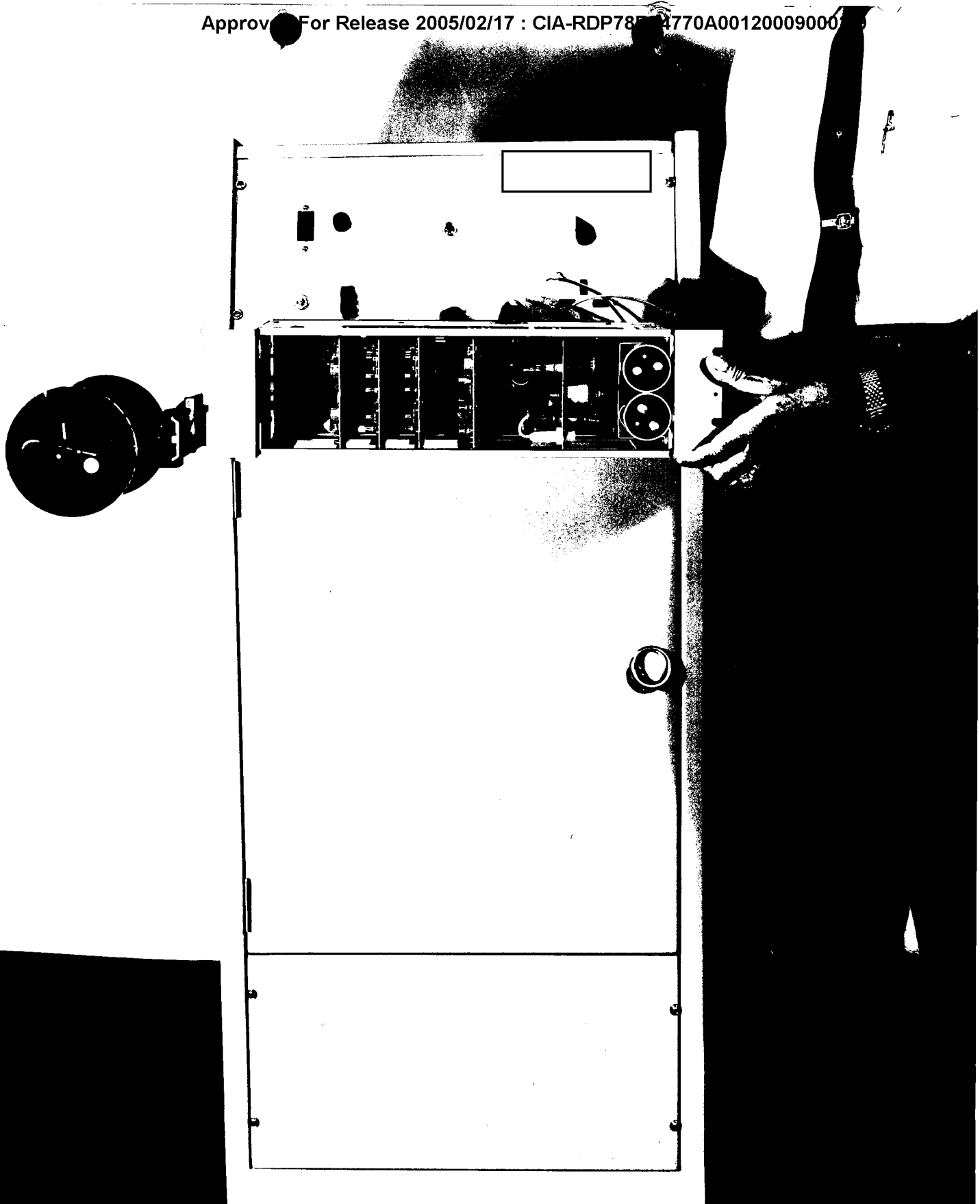
Enlarging 70mm film 4X to 9½" cut sheets or rolls could be accomplished with suitable optics and negative carrier. Mark IIR5 does not include 70mm optics or negative carrier.



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